

## CHAPTER 5 CONGESTION MITIGATION AND AIR QUALITY (CMAQ)

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5-A	FHWA MEMO - GUIDENCE UPDATE ON THE CMAQ PROGRAM - DATED 3/7/96 .....	5-5



## CHAPTER 5 CONGESTION MITIGATION AND AIR QUALITY

### 5.1 INTRODUCTION

The Congestion Mitigation and Air Quality (CMAQ) Improvement Program was established by the 1991 Federal Intermodal Surface Transportation Efficiency Act (ISTEA). Funds are directed to projects and programs which contribute or maintain National Ambient Air Quality Standards in non-attainment and air quality maintenance areas for ozone and carbon monoxide under provisions in the 1990 Clean Air Act. In certain cases, CMAQ funding may be used for projects reducing PM-10 particulate emissions.

### 5.2 ELIGIBILITY CRITERIA

Project and program eligibility has evolved through a series of Federal guidelines that were developed and issued following the passage of ISTEA. Generally, since the initial guidelines were issued in 1992 eligibility has been liberalized. The most recent set of Guidelines (“Guidance Update”) are dated March 7, 1996 and include modifications to previous guidelines to conform with passage of the 1995 National Highway System legislation that included a few changes to CMAQ law. Included as Exhibit 5-A “CMAQ Guidelines”. Because of the completeness of the Federal guidelines Caltrans has not prepared any guidelines of its own. Caltrans has prepared, however, guidelines that describe eligibility and application of the non-Federal match allowed by statute (SB 1435, 1992) for eligible CMAQ and Regional Surface Transportation Program projects.

A wide and diverse variety of projects and programs are eligible for CMAQ funding. For questions concerning eligibility consult the March 7, 1996 Guidelines (Exhibit 17-A “TSM Match Guidelines” in this manual). Specific program categories are listed below along with the page number reference in [Exhibit 5-A “CMAQ Guidelines”](#):

1. Transportation Activities in an approved State Implementation Plan or Maintenance Plan - Page 6
2. Transportation Control Measures - Page 6
3. Bicycle and Pedestrian Facilities and Programs - Page 7
4. Management and Monitoring Systems - Page 7
5. Traffic Management/Congestion Relief Strategies - Page 7
6. Transit Projects - Page 8
7. Highway and Transit Maintenance and Reconstruction Projects - Page 10
8. Planning and Project Development Activities - Page 10
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12. Intermodal Freight - Page 12
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18. Establishing/Contracting with TMAs - Page 14
19. Maintenance Areas - Page 15
20. Expansion of I/M Eligibility - Page 15
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22. Fare/Fee Subsidy Program - Page 19

In addition to meeting general eligibility criteria, CMAQ projects and programs require air quality analysis. [See Page 20 of Exhibit 5-A “CMAQ Guidelines”](#) for general requirements and level of analysis.

## 5.3 FUNDING

Nationwide, a little less than a \$1 billion per year is available for the CMAQ program. The funds are distributed by formula which weights each specific air basin's relative level of air severity and population compared to the nationwide total. California receives approximately \$140 million per year in funds.

Within California, by statute (SB 1435, Chaptered 1992), funds are apportioned using the same Federal formula to MPOs in non-attainment areas. Further sub-apportionment's are made in the Monterey Bay region and the county commissions in Southern California.

## 5.4 PROJECT SELECTION

Agencies receiving CMAQ apportionment's (e.g., MPOS & RTPAs), in cooperation with Caltrans, congestion management agencies, cities, counties, and transit operators, develop a program of projects for entry into the Federal Transportation Improvement Program (FTIP). Each MPO provides the rules for application for project listing in their local jurisdictions. The TIPs must be updated at least every two years. The updates must be submitted to the State no later than August 1st of each even numbered year. Each regional FTIP is subsequently incorporated into the Federal State TIP which also includes the projects for areas of the State not covered by the MPOs.

## 5.5 PROJECT IMPLEMENTATION

Upon selection for funding through the TIP process, projects become Federally eligible for reimbursement through the FHWA authorization and obligation process. Expenses incurred prior to authorization are not eligible for reimbursement. (See Chapter 3 “Project Authorization” in the *Local Assistance Procedures Manual*)

Under the 1991 ISTEA, the Federal share for most California CMAQ projects is 88.53 percent. Certain Interstate projects are eligible for 90 percent funding and safety related projects may be eligible for 100 percent funding. CMAQ funded projects are also eligible for State matching funds if the work qualifies under the provisions of Article XIX of the State Constitution. (See Chapter 17 “TSM match” in this manual)

## 5.6 FEDERAL TRANSIT ADMINISTRATION (FTA) TRANSFERS

Transit projects must first receive an FTA grant approval. The applicant describes the project activities and funding sources within the grant application. Upon grant approval, FTA notifies the applicant, Caltrans and FHWA of the amounts of ISTEA funds approved, then the applicant initiates a request for authorization through the District Office of Local Assistance and these funds are authorized and obligated through the standard FHWA project procedure. Upon obligation, they are transferred from FHWA control to FTA control. (See Chapter 3 “Project Authorization” in the *Local Assistance Procedures Manual*)

## 5.7 REPORTING

The State is required to prepare an annual report for FHWA describing the activities done in the prior Federal fiscal year. The report focuses upon the types of work being performed and the quantified assessment of the air quality improvements expected for each project. A clear, concise, description of the work and quantification of benefits should be submitted as part of the request for project authorization. Caltrans Transportation Programming prepares the report and solicits the required information from project and program sponsors in December of each year if the information is not provided with the project implementation.

## 5.8 REFERENCES

- Title 23 USC, Chapter 1, Sections 104, 120, 134, 135, 149
- “A Guide to Federal-Aid Programs, Projects, and Other Uses of Highway Funds,” Publication No. FHWA-PD-92-018, September 1992
- California Constitution, Article XIX
- Streets and Highways Code: Sections 182.4, 182.6 (f) and 182.7
- “Guidelines for Matching Regional Surface Transportation and CMAQ Projects (DRAFT, August 4, 1993),” Division of Transportation Programming.
- Division of Transportation Programming letter: December 27, 1993 to all MPOs. Subject: Federal FY 1992/93 CMAQ Projects
- The CMAQ Program Guidance Update (March 7, 1996 Attachments)

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# Memorandum

U.S. Department  
of Transportation  
**Federal Highway  
Administration**

Subject: **INFORMATION:** Guidance Update on the Congestion  
Mitigation and Air Quality Improvement (CMAQ) Program      Date:      March 7, 1996

From:      Associate Administrator for Program Development      Reply to  
Associate Administrator for Planning      Attn. of:      HEP-40/TPL-10

To:      Regional Federal Transit Administrators  
Regional Federal Highway Administrators  
Federal Lands Highway Program Administrator

On July 13, 1995, revised guidance was issued on the CMAQ program in response to comments from our customers expressed during the 1994 program review and earlier roundtable discussions of the Intermodal Surface Transportation Efficiency Act (ISTEA). The passage on November 28, 1995, of the National Highway System Designation Act (NHS legislation) brought several additional changes to the CMAQ Program. The attached Guidance Update incorporates the following changes:

- The distribution factors used to apportion funds each State receives under the CMAQ program for FY 1996 and FY 1997 are frozen to reflect the nonattainment area status in FY 1994 including any changes that occurred during that year;
- Funding for maintenance areas, formerly limited to a 2-year transition period, is now allowable under the NHS legislation without a time limitation; and
- The attainment deadline restriction which required that some aspect of a project must be operational prior to the area's attainment date has been eliminated since CMAQ eligibility has been extended to the maintenance period. Nevertheless, the guidance encourages nonattainment areas to consider those projects that will help them attain the standards by the appropriate attainment dates.

The NHS legislation also made other changes to the CMAQ program regarding the eligibility of traffic monitoring, management, and control facilities or programs (see Section III.A.5, the use of private donations as matching funds (see Section III.B.6), and the Federal share for bicycle and pedestrian projects (see Section VI.C).

The primary purpose of the CMAQ program remains the same: to fund projects and programs, whether in nonattainment or maintenance areas, which reduce transportation related emissions. The significant flexibility which resulted from the Revised Guidance of July 13, 1995, remains, including continuing support of outreach activities and encouraging experimental pilot projects.

If you have any questions on the CMAQ program or this guidance, please contact Mike Savonis of FHWA at (202) 366-2080 or Abbe Marner of FTA at (202) 366-0096.

/s/ Charlotte M. Adams \_\_\_\_\_  
Charlotte M. Adams  
Federal Transit Administration

/s/ Thomas J. Ptak  
Thomas J. Ptak  
Federal Highway Administration

Attachment



**The Congestion Mitigation and Air Quality Improvement  
(CMAQ) Program**

**of the**

**Intermodal Surface Transportation Efficiency Act**

**Guidance Update**

**March 7, 1996**

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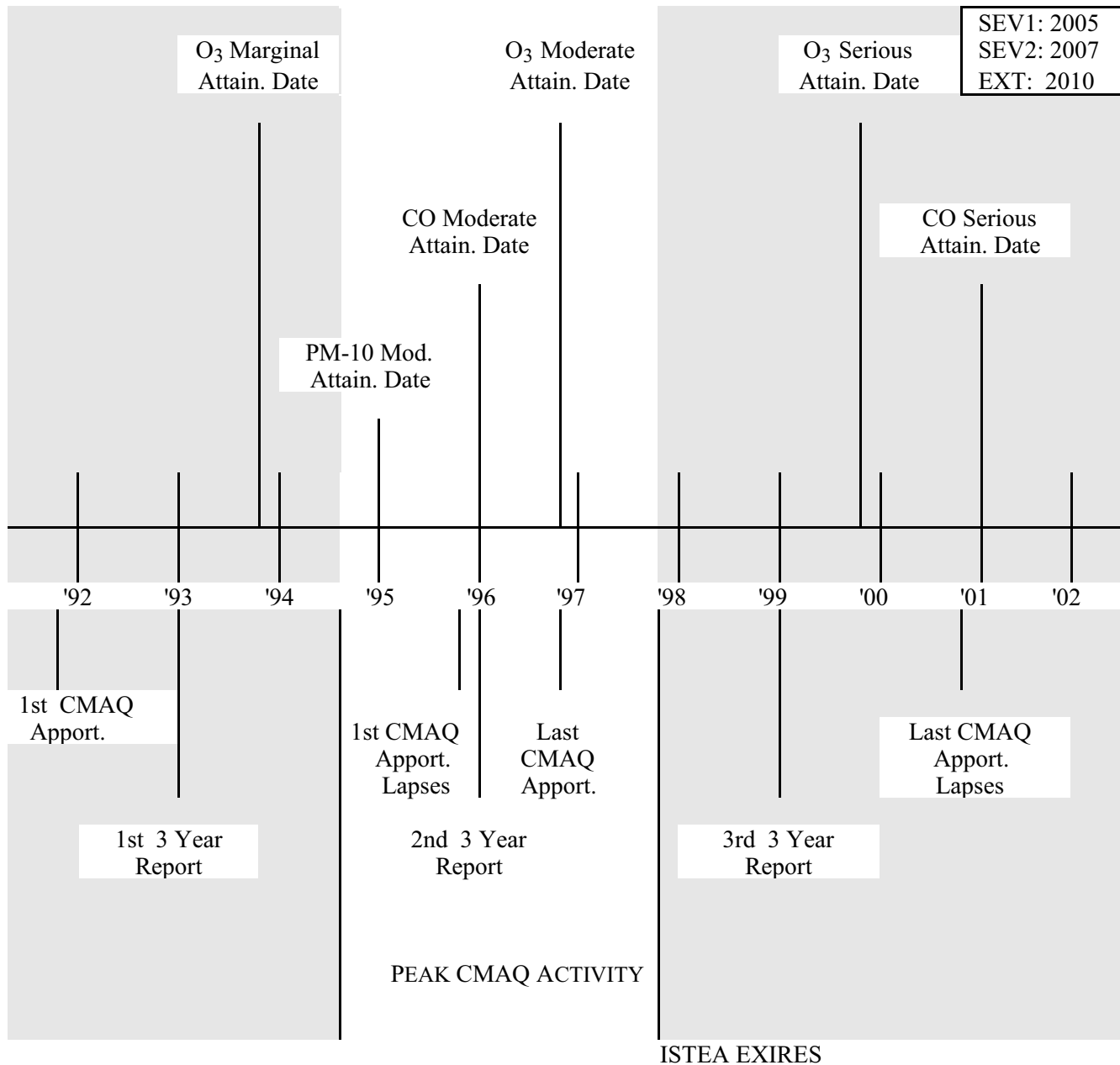
## I. Introduction

As established under the Intermodal Surface Transportation Efficiency Act (ISTEA), the CMAQ Program was designed to substantially expand the focus and purpose of Federal transportation funding assistance to include air quality improvement as a specific objective. These funds are to assist areas designated as nonattainment and maintenance under the Clean Air Act Amendments (CAAA) of 1990 to achieve healthful levels of air quality by funding transportation projects and programs. Six billion dollars is authorized under the program, and apportionments totaling \$1 billion are made each year to the States between 1992 and 1997. The first CMAQ apportionment was made in December 1991, and the last will not lapse until the end of fiscal year (FY) 2000.

The CMAQ program has reached mature spending rates, and States have obligated these funds at levels comparable to other, more familiar Federal funding programs, growing to 99 percent in FY 1995. In 1994, the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), and Environmental Protection Agency (EPA) conducted an extensive review of the CMAQ program with the stated purpose of improving efficiency of program delivery and determining how to better achieve the program's goals. This revised guidance was originally issued as a result of that review process in an effort to be as responsive as possible to the States, local governments, project sponsors, and other stakeholders in the program. Additional changes have been made as a result of the National Highway System Designation Act of 1995 (NHS legislation). Additional copies of this revised guidance are available from the FHWA Hotline at (202) 366-2069. The provisions contained herein are effective immediately and supersede all previous guidance, including all questions and answers and policy memoranda issued to date.

Figure 1

CMAQ Program Timeline of Important Events



## II. Program Purpose

The original purpose of the CMAQ program was to fund transportation projects or programs that will contribute to attainment of a national ambient air quality standard (NAAQS), primarily for ozone and carbon monoxide (CO). The NHS legislation expands eligibility to areas that were designated as nonattainment under the CAAA of 1990 but were since redesignated to attainment status by EPA (referred to as "maintenance areas" (see Section III.B.4)). Nonetheless, the CMAQ Program's primary purpose is to fund improvement projects that will assist nonattainment and maintenance areas to reduce transportation emissions rather than maintain the existing transportation networks.

States with areas which are designated as nonattainment for ozone or CO must use their CMAQ funds in their nonattainment or maintenance areas. States with a maintenance area and no nonattainment area should give the air quality needs of the maintenance areas first priority (see Section III.B.4). A State may also use its CMAQ funds in any of its particulate matter (PM-10) nonattainment or maintenance areas, if the requirements below are met. This and all subsequent mention of nonattainment status contained in this guidance refers to those areas classified as marginal or worse for ozone, and moderate or worse for CO or PM-10 under the CAAA of 1990.

Funding under the CMAQ program may not be used in areas that are designated as nonattainment by operation of law prior to enactment of the CAAA of 1990. These include but are not limited to the ozone "transitional," "submarginal," and "incomplete data" areas and the CO "not classified" areas.

States with ozone or CO nonattainment or maintenance areas, but wishing to use CMAQ funds in PM-10 nonattainment or maintenance areas, must meet the following requirements.

- the State must consult with, and consider the views of, the metropolitan planning organizations (MPOs) in all nonattainment and maintenance areas within the State before programming CMAQ funds for a PM-10 project. The State must obtain the concurrence only of the MPO in whose jurisdiction the project is to be implemented.
- also, the EPA regional office must agree that the proposed use of CMAQ funds for PM-10 projects or programs will not detract from or delay efforts to attain the ozone or CO standards.

The CMAQ provisions in ISTEA recognize ozone and CO as the primary transportation pollutants. The requirements listed above will ensure proper consideration of the views of the agencies charged with controlling transportation emissions of ozone precursors, CO, and PM-10, especially their views on the most effective use of transportation funds in achieving the NAAQS. The CMAQ eligibility of PM-10 projects will not affect a State's CMAQ apportionment, but has the potential to spread the limited CMAQ funds over a greater number of nonattainment and

maintenance areas within the State. Examples of eligible projects and programs in a PM-10 nonattainment or maintenance area, if the above requirements are met, are paving dirt roads, diesel bus replacements, and purchase of more effective street-sweeping equipment.

These requirements apply only to projects and programs whose sole justification for CMAQ eligibility is the reduction in PM-10 emissions. In an area which is nonattainment or maintenance for both PM-10 and one of the other pollutants, projects which reduce emissions of CO or ozone precursors in addition to reducing PM-10 emissions are not subject to these additional requirements.

Congress did not intend CMAQ funding to be the only source of funds to reduce congestion and improve air quality. Other funds under the Surface Transportation Program (STP) or FTA's capital assistance programs, for example, may be used for this purpose as well. Furthermore, the greatest air quality benefit will accrue not solely from Federal funds but from a partnership of Federal, State and local efforts.

### **III. Project Eligibility**

In general, all projects and programs eligible for CMAQ funds must come from a conforming transportation plan and transportation improvement program (TIP), and be consistent with the conformity provisions contained in Section 176(c) of the Clean Air Act. Projects also need to complete the National Environmental Policy Act (NEPA) requirements and be included in the appropriate statewide program, and meet basic eligibility requirements for funding under Titles 23 and 49 of the United States Code.

Transportation projects and programs are eligible for CMAQ program funds only if they meet certain criteria spelled out in the ISTEA as amended. The CMAQ provisions in Title 23, Section 149 as amended by the NHS legislation are attached (see Attachment 1). In determining project eligibility under these criteria, priority should be given to implementing those projects and programs that are included in an approved State implementation plan (SIP) as a transportation control measure (TCM) and will have air quality benefits. The activity must be eligible under the law and this guidance, even if it is included as a TCM in a SIP, before CMAQ funds may be used for it. Any reference to improving air quality contained in this guidance means reducing ozone precursors in ozone areas, CO emissions in CO areas or, if applicable, transportation-related PM-10 pollution in PM-10 areas, whether these areas are designated as nonattainment or maintenance.

In cases where specific guidance is not provided, either below or in other communications, the following should guide CMAQ eligibility decisions.

**Capital Investment:** Federal contributions to air quality improvements under the CMAQ program should be used for establishment of new or expanded transportation projects and programs to reduce emissions. In most cases this is likely to be capital investment in transportation infrastructure or establishment of a new demand management strategy or other program.

**Operating Assistance:** There are several general conditions which must be met in order for any type of operating assistance to be eligible under the CMAQ program. These apply equally to traffic flow improvements, transit, ridesharing, bicycle and pedestrian programs, inspection and maintenance (I/M) programs, travel demand management (TDM) measures and any other project funded under the CMAQ program and not covered elsewhere in this guidance.

- operating assistance is limited to new or expanded services.
- in extending the CMAQ funds to operating assistance, the intent is to help start up viable new services which have air quality benefits and eventually will be able to cover their costs to the maximum extent possible. Other established funding sources should supplement and ultimately supplant CMAQ operating assistance. Thus, CMAQ funds must be used in combination with usual fares or user fees (or reasonable fares/fees in the absence of an established fare/fee).
- operating assistance under the CMAQ program is limited to 3 years, except as noted elsewhere in this guidance.

**Emission Reductions:** The proposal for funding must be expected to result in tangible reductions in CO and ozone precursor emissions (and under certain conditions PM-10 pollution). This can be demonstrated by the assessment of anticipated emission reductions that is required under this guidance for most projects. The FHWA and FTA strongly encourage State and local governments to use CMAQ funds for their primary purpose under the ISTEA: to assist nonattainment and maintenance areas to reduce transportation-related emissions.

**Public Good:** Finally, the proposal for funding should be for the good of the general public. While the transportation service may be focused on a specific area, CMAQ funds can be used for services which benefit a specific entity, such as a major employer, only for short trial periods to test the viability of the program or project. Public-private partnerships, however, are allowed if a project will benefit both the public and elements of the private sector (see Section III.A.13).

## **A. Previously Eligible Activities**

The kinds of activities that have been, and continue to be, eligible for CMAQ funds are described below, together with any restrictions. All possible requests for funding are not covered; instead this section provides particular cases where guidance can be given and rules of thumb applied to assist decisions regarding CMAQ eligibility.

- 1. Transportation Activities in an Approved SIP or Maintenance Plan:** Transportation activities in approved SIPs and maintenance plans are likely to be eligible activities and, if so, must be given the highest priority for CMAQ funding. Their air quality benefits will generally have already been documented. If not, such documentation is necessary before CMAQ funding can be approved.

Further, the transportation activity must contribute to the specific emission reductions necessary to bring the area into attainment.

2. **Transportation Control Measures:** The TCMs included in Section 108(f)(1)(A) of the CAAA of 1990 are the kinds of projects intended by the ISTEA for CMAQ funding, and generally satisfy the eligibility criteria. As above, and consistent with the statute, air quality benefits for TCMs must be determined and documented before a project can be considered eligible. Two of the CAAA TCMs, however, are specifically excluded from the CMAQ program by the ISTEA legislation. They are: xii - reducing emissions from extreme cold-start conditions, and xvi - programs to encourage removal of pre-1980 vehicles. Eligible TCMs are listed below as they appear in Section 108.

- (i) programs for improved public transit;
- (ii) restriction of certain roads or lanes to, or construction of such roads or lanes for use by, passenger buses or high-occupancy vehicles (HOV);
- (iii) employer-based transportation management plans, including incentives;
- (iv) trip-reduction ordinances;
- (v) traffic flow improvement programs that achieve emission reductions;
- (vi) fringe and transportation corridor parking facilities serving multiple-occupancy vehicle programs or transit service;
- (vii) programs to limit or restrict vehicle use in downtown areas or other areas of emission concentration particularly during periods of peak use;
- (viii) programs for the provision of all forms of high-occupancy, shared-ride services;
- (ix) programs to limit portions of road surfaces or certain sections of the metropolitan area to the use of non-motorized vehicles or pedestrian use, both as to time and place;
- (x) programs for secure bicycle storage facilities and other facilities, including bicycle lanes, for the convenience and protection of bicyclists, in both public and private areas;
- (xi) programs to control extended idling of vehicles;
- (xii) EXCLUDED BY ISTEA;
- (xiii) employer-sponsored programs to permit flexible work schedules;
- (xiv) programs and ordinances to facilitate non-automobile travel, provision and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts of a locality, including programs and ordinances applicable to new shopping centers, special events, and other centers of vehicle activity;



- (xv) programs for new construction and major reconstructions of paths, tracks or areas solely for the use by pedestrian or other non-motorized means of transportation when economically feasible and in the public interest. For purposes of this clause, the Administrator shall also consult with the Secretary of the Interior.
- (xvi) EXCLUDED BY ISTEA.

3. **Bicycle and Pedestrian Facilities and Programs:** Bicycle and pedestrian facilities and programs are included as a TCM in Section 108 of the CAAA (ix, x, xiv, and xv above). In addition, the ISTEA makes specific mention of the eligibility of bicycle and pedestrian facilities and programs under CMAQ (see 23 U.S.C. 217 (a)(d)). Included as eligible projects are:

- construction of bicycle and pedestrian facilities,
- nonconstruction projects related to safe bicycle use, and
- establishment and funding of State bicycle/pedestrian coordinator positions, as established in the ISTEA, for promoting and facilitating the increased use of non-motorized modes of transportation. This includes public education, promotional, and safety programs for using such facilities.

4. **Management and Monitoring Systems:** The ISTEA required that 6 management systems be developed, established, and implemented by the States (see 23 U.S.C. 303(a)). The NHS legislation now makes these management systems optional. However, 23 U.S.C. 134(i)(3) still requires that the metropolitan planning process in all Transportation Management Areas (metropolitan areas of 200,000 or more in population) include a congestion management system. In addition, States are required to develop and implement a traffic monitoring system for highways and public transportation facilities and equipment (see 23 U.S.C. 303(b)).

Projects to develop, establish, and implement these management systems and the traffic monitoring system, whether under the provisions of 23 U.S.C. 303 or under a State's own procedures, remain eligible for CMAQ funds where it can be demonstrated that such use is likely to reduce transportation related emissions.

5. **Traffic Management/Congestion Relief Strategies:** Traffic management and congestion relief strategies in both the highway and transit fields are eligible for CMAQ funding as CAAA Section 108(f) TCMs provided that they can be shown to improve air quality. In addition to traffic signal modernization projects designed to improve traffic flow within a corridor or throughout an area like an urban central business district, intelligent transportation infrastructure (ITI) traffic management and traveler information systems can be effective in reducing traffic congestion, enhancing transit bus performance and improving air quality. A program of nine components has been identified as a framework for integrating and deploying ITI in metropolitan areas of all sizes. The following seven components of the ITI have the greatest potential for improving air quality:

- regional multimodal traveler information center
- traffic signal control systems
- freeway management systems
- transit management systems
- incident management programs
- electronic fare payment systems
- electronic toll collection systems

While interconnected traffic signal control systems and freeway management systems have been recognized for their air quality improvement benefits, other user services like electronic fare and toll collection systems can be useful in reducing or eliminating air quality "hot spots". Individually, these core infrastructure elements can reduce emissions and therefore qualify for CMAQ funding. However, when linked together in a system, their benefits are likely to be greater.

In recognition of the air quality benefits to be derived from the efficient and effective operation and maintenance of advance transportation management and traveler information systems, operating expenses are eligible for CMAQ funding, where:

- they can be shown to have air quality benefits;
- the expenses are incurred from new or additional services; and
- previous funding mechanisms, such as fees for services, are not displaced.

The ISTEA requires that CMAQ funded projects contribute to the attainment of a national ambient air quality standard. Therefore, it must be found that these operating costs are necessary for the overall system to contribute to attainment of an ambient air quality standard. The FHWA/FTA, after consultation with EPA, is empowered to make this finding on a case by case basis. Furthermore, it is reasonable to assume that, after several years, a transportation service may no longer be considered to be an air quality improvement project, but that it has become a part of the existing transportation network. Hence, FHWA and FTA field offices are advised to use the consultation process with EPA to make a determination that operating assistance for traffic management and control will assist in the attainment of an air quality standard, particularly for proposals to extend this assistance beyond an initial 3-year period of eligibility.

6. **Transit Projects:** Improved public transit is one of the TCMs identified in Section 108 of the CAA. A wide range of capital improvements are eligible for CMAQ funding as described below. In general, CMAQ eligibility is determined on the basis of whether or not the project represents an expansion or enhancement of transit service. If the capital project is clearly a system/service expansion, it is eligible. If it is a reconstruction or rehabilitation of an existing facility, it is not eligible and the project sponsor should pursue other funding sources, such as the Section 9 formula grant program or the Surface Transportation Program. There will be "gray" areas; for example, a major reconstruction of an old, underutilized railroad terminal might be done in conjunction with new park-and-ride facilities and a restructuring of bus routes to enhance transit service. In such

cases, the eligibility determination by FTA will focus on whether it is reasonable to expect a significant gain in ridership due to the project.

*Transit facilities* - Eligible capital projects include such facilities as new stations, terminals, transit centers, transit malls, intermodal transfer facilities, and preferential treatment for buses/HOVs on existing roads. Consistent with previous policy, park-and-ride facilities located adjacent to a transit stop are eligible, although in a CO or PM-10 nonattainment or maintenance area, air quality analysis may be required to demonstrate that no localized "hot-spot" violations will occur. Major new fixed-guideway and bus/HOV facilities and extensions to existing facilities are also eligible.

*Transit vehicles and equipment* - New buses, vans, locomotives and rail cars to expand the fleet and augment service are eligible. One-for-one vehicle replacements of the existing bus, rail or van fleet are eligible, although the caveat in previous guidance still applies: that is, CMAQ funding for bus replacements in PM-10 nonattainment and maintenance areas is clearly justified, whereas bus replacements in CO and ozone nonattainment and maintenance areas will provide much smaller air quality benefits with respect to the pollutants of concern. Purchase of new buses, as well as refueling infrastructure, dedicated to alternative fuels is eligible notwithstanding the conditions in Section III.A.9. Automobiles used solely by the transit agency are not eligible.

Determining the eligibility of transit-related equipment will be handled on a case-by-case basis. Major system-wide upgrades, such as advanced signal and communications systems which improve speed and/or reliability of transit service will likely be eligible, whereas in-kind replacements will not be. Again, the guideline is whether or not the equipment can reasonably be expected to enhance service and generate additional ridership.

*Transit-associated development* - This includes various types of retail and other services located in or very close to transit facilities. They offer convenience for the transit patron but are not required for the functioning of the system. In general, transit-associated development is not eligible under the CMAQ Program. Child-care centers located adjacent to a major transit stop have been proposed in the past as beneficial to air quality. This type of use could now be funded as an experimental pilot project.

*Transit operations* - Operating assistance under the CMAQ Program is limited to the introduction of new transit services. Examples are: shuttle service feeding a station; circulator service within an activity center; or fixed-route service linking activity centers. Minor adjustments in existing routes and service schedules do not constitute new service. The intent is to support demonstrations of new transit or paratransit service to try to tap new markets and increase transit use. Service demonstrations will usually involve buses or vans since the service should be relatively low-cost and easily terminated if sufficient ridership is not achieved. The 3-year period of funding assistance

should be long enough to assess whether the service is worth continuing with other established sources of funding. While there is no requirement that the new service be implemented in conjunction with TDM measures, project sponsors are encouraged to do this.

Operating assistance under the CMAQ program can also be used for the start-up of new major infrastructure projects, such as new rail lines or bus/HOV facilities and extensions to existing systems. However, CMAQ funds cannot replace previously committed funding from other sources to support operations, e.g., local financing plans for operations contained in Federal full-funding grant agreements for major investment projects. Under the CMAQ program, operating assistance for new transit services will be funded at an 80 percent Federal share. The Federal share applies only to the portion of operating costs not covered by fare revenue or fees for service.

In addition to operating assistance for new transit service, this guidance also allows partial, short-term subsidies of transit/paratransit fares as a means of encouraging transit use. This is subject to the conditions set out in Section III.B.7. Proposals such as reduced fare programs during periods of elevated ozone levels (so-called "ozone alerts") and discounted transit passes targeted at specific groups or locations may now be eligible if these conditions are met.

7. **Highway and Transit Maintenance and Reconstruction Projects:** Routine maintenance projects are ineligible for CMAQ funding. Routine maintenance and rehabilitation on existing facilities maintains the existing levels of highway and transit service, and therefore maintains existing ambient air quality levels. Thus, no progress is made toward achieving the NAAQS. Rehabilitation projects only serve to bring existing facilities back to acceptable levels of service. Other funding sources, like the STP and Section 9 formula grant programs, exist for reconstruction, rehabilitation and maintenance activities. Replacement-in-kind of track or other equipment, reconstruction of bridges, stations and other facilities, and repaving or repairing roads are ineligible.
8. **Planning and Project Development Activities:** Project planning or other development activities that lead directly to construction of facilities or new services and programs with air quality benefits, such as preliminary engineering or major investment studies for transportation/air quality projects, are eligible. This includes studies for the preparation of environmental or NEPA documents and related transportation/air quality project development activities. Project development studies would include planning directly related to a TCM or feasibility/developmental studies for any other eligible project or program. In the event that air quality monitoring is necessary to determine the air quality impacts of a proposed project, which is eligible for CMAQ funding, the costs of that monitoring are also eligible.

General planning activities, such as economic or demographic studies, that do not directly propose or support a transportation/air quality project are too far removed from project development to ensure any emission reductions and are not eligible for funding. Funding for preparation of NEPA or other

environmental documents that are not related to a transportation project to improve air quality is also ineligible. Such activities should be funded with other appropriate Title 23 or Federal Transit Act funds.

Region- or area-wide air quality monitoring is not eligible because such projects do not themselves yield air quality improvements nor do they lead directly to projects that would yield air quality benefits. Air quality monitoring is normally a State air quality agency responsibility which is funded under Section 105 of the Clean Air Act. If the MPO or State chooses, air quality monitoring could also be funded as a transportation planning activity and appropriate Title 23 funds used. However, it should be noted that regional air quality monitoring is subject to EPA guidance on siting and quality assurance.

9. **Alternative Fuels:** In general, the conversion of individual conventionally-powered vehicles to alternative fuels is not eligible under the CMAQ Program. However, the conversion or replacement of centrally-fueled fleets to alternative fuels is eligible provided that the fleet is publicly owned (or leased)--such as city or State vehicle fleets--and one of the following conditions is met:

- the fleet conversion is in response to a specific requirement in the CAAA, e.g. the clean fuel vehicle program required of "serious" and worse ozone nonattainment areas, or
- the fleet conversion is specifically identified in the SIP as part of the emissions reduction strategy of a nonattainment area or in the maintenance plan for purposes of maintaining the air quality standards.

Satisfying these conditions assures that the alternative fuel conversion is aimed primarily at air quality improvement and further requires that these projects be given the highest funding priority. There is one exception--replacement of a standard size, conventionally-fueled transit bus with a new, dedicated alternative fuel vehicle is eligible under the transit provisions of this guidance and does not have to meet these requirements. Conversions of existing transit buses to alternative fuels and replacements with new dual fuel vehicles must be included in the SIP or maintenance plan to be eligible for CMAQ funding. As with all CMAQ proposals, it must be demonstrated that the proposed fleet conversion is effective in reducing the specific pollutant(s) causing the air quality violation.

The establishment of on-site fueling facilities and other infrastructure needed to fill alternative-fuel vehicles are also eligible expenses under the above conditions. This means that the vehicles and facility must be publicly owned (or leased) and that the use of alternative-fuel vehicles must be either required under the CAAA or in the SIP or maintenance plan, with one exception. If private filling stations, that are reasonably accessible and convenient, exist to fuel the alternative-fuel vehicles, then CMAQ funds may not be used to fund publicly-owned fueling stations. Such an activity would interfere with private enterprise, and needlessly use transportation/air quality funds for services duplicated in the area.

10. **Telecommuting**: The DOT supports the establishment of telecommuting programs. Planning, technical and feasibility studies, training, coordination and promotion are eligible activities under CMAQ. Physical establishment of telecommuting centers, computer and office equipment purchases and related activities are not eligible. Such activities are not typically transportation projects and funding them would not meet the requirements in the ISTEA.
11. **Travel Demand Management**: Travel demand management encompasses a diverse set of activities ranging from traditional carpool and vanpool programs to more innovative parking management and road pricing measures. Many of these measures are specifically referenced in the legislation creating the CMAQ program. Travel demand management projects meeting the basic eligibility requirements of the Federal Highway and Transit programs have always been eligible for CMAQ funding. Eligible activities include: market research and planning in support of TDM implementation; capital expenses required to implement TDM measures; operating assistance to administer and manage TDM programs for up to 3 years; as well as marketing and public education efforts to support and bolster TDM measures (see also Sections III.B.1-3).

Experience to date suggests that new transportation service has the greatest chance of success if offered along with complementary measures which discourage single-occupant vehicle use, such as parking restrictions or differential parking fees. Several provisions in ISTEA require metropolitan areas to consider TDM measures in the planning process and this guidance seeks to encourage their development and implementation.

12. **Intermodal Freight**: The CMAQ funds have been, and may continue to be, used for improved intermodal freight facilities where air quality benefits can be shown. Capital improvements as well as operating assistance meeting the conditions of this guidance are eligible. In that many intermodal freight facilities include private sector businesses, several of the proposals that have been funded have been under public-private partnerships.
13. **Public/Private Initiatives**: The CMAQ program may be used to fund projects or programs that are owned, operated or under the primary control of the public sector, including public/ private joint ventures. A State may use CMAQ funds for initiatives that are privately owned and/or operated, including efforts developed and implemented by Transportation Management Associations, as long as the activity is one which: (1) normally is a public sector responsibility (such as facility development for enhanced I/M programs), (2) private ownership or operation is shown to be cost-effective, and (3) the State is responsible for protecting the public interest and public investment inherent in the use of Federal funds.

Activities which are the mandated responsibility of the private sector under the Clean Air Act, such as vapor recovery systems at gas stations, are not eligible. Implementation of employer trip reduction programs is also a private responsibility, but general program assistance to employers to

help them plan and promote these programs is eligible. Further assistance to support trip reduction programs in the form of new public transportation services is also eligible as outlined in Section III.A.6.

14. **Other Eligible Transportation Projects and Programs:** Other transportation projects and programs, even if they are not included under one of the categories above may also be funded under CMAQ. Innovative activities based on promising technologies and feasible approaches to improve air quality will also be considered for funding. This would include such ventures as new efforts to identify and curtail the emissions of gross emitters, planning and development of parking management programs, and preferential treatment for high-occupancy vehicles. Like all proposals, the State must provide documentation of air quality benefits, and FTA/FHWA, in consultation with EPA, must be satisfied that the project or program will help attain a NAAQS.
15. **Limitation on Construction of Single-Occupant Vehicle Capacity:** Construction projects which will add new capacity for single-occupant vehicles are not eligible under this program unless the project consists of a HOV facility that is only available to single-occupant vehicles (SOV) at off-peak travel times. For purposes of this program, construction of added capacity for single-occupant vehicles means the addition of general purpose through lanes to an existing facility, which are not HOV lanes, or a highway on new location.

## **B. Newly Eligible Activities**

1. **Outreach Activities:** Outreach activities, such as public education on transportation and air quality, advertising of transportation alternatives to SOV travel, and technical assistance to employers or other outreach activities for Employee Commute Option program implementation have been, and continue to be, eligible for CMAQ funds. The previous policy allowing up to 2 years of CMAQ funding for these activities has been changed. Now, outreach activities may be funded under the CMAQ program for an indefinite period.

Outreach activities differ fundamentally from the establishment of transportation services. They are communication services that are critical to successful implementation of transportation measures, especially demand management measures. As such, they reach new audiences each time they are implemented, and the restriction on the length of time they may be funded seems contrary to one of the program's goals of effecting behavioral changes to reduce transportation emissions. Outreach activities may be employed for a wide variety of transportation services. They may equally affect new and existing transit, shared ride, I/M, traffic management and control, bicycle and pedestrian, and other transportation services.

Marketing programs to increase use of transportation alternatives to SOV travel and public education campaigns involving the linkage between transportation and air quality are eligible operating expenses. Transit "stores" selling fare media and dispensing route and schedule information which occupy leased space are also eligible. These activities are not subject to the 3-year limit.

Based on information from the 1994 program review, there appears to be a great need to educate the public on the impacts of their travel behavior. States and MPOs are encouraged to give due consideration to outreach activities in the programming of their CMAQ apportionments.

2. **Rideshare Programs:** Previous guidance restricted eligibility to the implementation of new or expanded services. Rideshare services consist of carpool and vanpool programs, and important activities of these programs are computer matching of individuals seeking to carpool and employer outreach to establish rideshare programs and meet Clean Air Act requirements. These are outreach activities even if they are part of an existing rideshare program and are now eligible for CMAQ funding under the same rationale as above.

New or expanded rideshare programs, such as new locations for matching services, upgrades for computer matching software, etc. continue to be eligible and may be funded for an indefinite period of time.

Many expenses related to vanpooling are different from the above activities, and a distinction needs to be drawn from the above policy. Unlike carpool matching services the implementation of a vanpool operation entails purchasing vehicles and providing a transportation service. These activities are not communication services and not different from other transportation services. Therefore, proposals for vanpool activities such as these must be for new or expanded service to be eligible and are subject to the 3-year limitation on operating costs.

Under the CMAQ program, the purchase price of a publicly-owned vehicle for a vanpool service does not have to be paid back to the Federal Government. Requiring payback would place an additional constraint to wider implementation and usage of rideshare programs. Nonetheless, CMAQ funds should not be used to develop vanpool services that would be in direct competition with and impede private sector initiatives. Consistent with the metropolitan planning regulation of October 28, 1993 (23 CFR 450.300), States and MPOs should consult with the private sector prior to using CMAQ funds to purchase vans, and if local private firms have definite plans to provide adequate vanpool service, CMAQ funds should not be used to supplant that service.

3. **Establishing/Contracting with TMAs:** Transportation Management Associations (TMAs) are comprised of private individuals or firms who organize to address the transportation issues in their immediate locale. Previous guidance allowed the funding of transportation projects generated by



TMA if air quality benefits were demonstrated but did not allow funding for the TMA itself. This guidance now allows the use of CMAQ funds for the establishment of TMAs. Eligible expenses for reimbursement are associated start-up costs for up to 3 years. As with previous guidance, the TMA must still be sponsored by a public agency, and the State (or other public agency) is still ultimately responsible for ensuring that funds are appropriately used to meet CMAQ program objectives.

During the program review, representatives from several States felt that existing policy prevented them from contracting with TMAs to provide services and develop projects that have air quality benefits. The TMAs can play a useful role in brokering transportation services to private employers, and this guidance clarifies that CMAQ funds may be used to contract with TMAs for this purpose, including coordinating rideshare programs, providing shuttle services, developing parking management programs, etc. Sufficient care must be taken to specify the goals and deliverables before granting the use of CMAQ funds for this activity.

4. **Maintenance Areas:** Under the NHS legislation, CMAQ funds may now be obligated for projects in maintenance areas, thereby lifting the 2-year limitation contained in the previous program guidance of July 13, 1995. CMAQ funds may be used to reduce transportation-related emissions in maintenance areas as well as nonattainment areas within a State with no time limit. CMAQ funds cannot be used for projects in areas designated as "transitional," "submarginal," or "incomplete data" nonattainment areas for ozone or in "not classified" nonattainment areas for carbon monoxide.

If a State has a maintenance area and no nonattainment areas, the air quality needs of the maintenance area should be given first priority. Since the existence of maintenance areas was taken into account when the NHS legislation froze the distribution factors at FY 1994 levels, it is clear that the intent of the change was to continue to provide funding for projects which reduce transportation emissions. Before using CMAQ funds elsewhere, a State must show that the maintenance area status is not endangered by the shift of funds. This can be done by demonstrating to FHWA, FTA, and EPA that the decision was made in consultation with the affected MPO along with an examination of the maintenance plan for CMAQ needs. A State could make a case for "continued maintenance of the standard," for example, if it can be shown that any transportation activities contained in the maintenance plan have sufficient funding commitments to carry out such activities without the use of CMAQ funds.

5. **Expansion of I/M Eligibility:** Emission I/M programs show strong potential for improving air quality and related activities are cost-effective uses of CMAQ funds. Recognizing this, FHWA/FTA's previous policy indicated that construction of facilities and purchase of equipment for I/M stations in test-only networks were eligible. Projects necessary for the development of these I/M programs and one-time start-up activities, such as updating quality assurance software or developing a mechanic training curriculum, were also described as eligible activities. Operating expenses were also determined to be eligible for CMAQ funding subject to the general conditions applying to all new transportation services. Specifically, the I/M program must constitute new or additional efforts;

existing funding (including inspection fees) should not be displaced, and operating expenses were only eligible for 2, now expanded to 3, years.

When implemented, the policy to allow expenditures for the establishment of I/M programs was in line with EPA's rationale that test-only I/M programs are the most effective way to realize emission reductions. Hence the policy was restricted to test-only I/M programs. Since that time, EPA has allowed some I/M programs to go forward that include elements of test-and-repair, provided that the overall estimated emission reductions necessary to meet the State's targets are still met. Thus, the CMAQ policy regarding I/M is now similarly revised.

Funds under the CMAQ program may be used for the establishment of I/M programs at publicly-owned I/M facilities. This is true whether the I/M program is test-only or test-and-repair. Publicly-owned I/M facilities may be constructed, equipment may be purchased, and the facility operated for up to 3 years with CMAQ funds, provided that the conditions covering operations described above are met.

The establishment of I/M programs at privately-owned stations, such as service stations that conduct emission test-and-repair services, can only be funded under the CMAQ program under the provisions covering "public-private partnerships" contained in this guidance. However, if the State relies on private stations, State or local administrative costs for the planning and promotion of the State's I/M program--whether test-only or test-and-repair, or both--may be funded under the CMAQ program.

The establishment of "portable" I/M programs is also eligible under the CMAQ program, provided that they are public services, contribute to emission reductions and do not conflict with statutory I/M requirements or EPA implementing regulations. These programs must be included in the area's TIP before they can be funded.

6. **Experimental Pilot Projects/Innovative Financing:** States and local areas have long experimented with various types of transportation services--and different means of employing them--in an effort to better meet the travel needs of their constituents. These "experimental" projects may not meet the precise eligibility criteria for Federal and State funding programs, but they may show promise in meeting the intended public purpose of those programs in an innovative way. The FHWA and FTA have supported this approach in the past and funded some of these projects as demonstrations to determine what the benefits and costs actually are.

The CMAQ provisions of ISTEA allow experimentation provided that the project or program can reasonably be defined as a "transportation" project and that emission reductions can reasonably be expected "through reductions in vehicle miles traveled, fuel consumption or through other factors." This is in addition to the broad flexibility allowed under the ISTEA to fund a wide variety of projects. A more flexible approach makes particular sense given the magnitude of the air quality

problem in the most severe nonattainment areas in the country and the lack of substantial emission reductions gained from traditional transportation projects and programs.

This guidance encourages States and MPOs to creatively address their transportation/air quality problems and to experiment with new services, imaginative financing arrangements, public/private partnerships and complementary approaches that constitute comprehensive strategies to reduce emissions through transportation programs. The CMAQ program can now be used to support a well conceived project even if the proposal may not otherwise meet the eligibility criteria of this guidance. Proposals submitted for funding under this provision should show promise in reducing transportation emissions and should have the concurrence of FHWA/FTA and State transportation agencies, and the MPO. The proposal must also be coordinated with EPA and State/local air quality agencies. A particular example that might be funded under this approach could be to use CMAQ funds for capital improvements to transit stations for the establishment of day care centers.

Certain projects may not be funded under the CMAQ program under any circumstances. Activities which are legislatively prohibited, including scrappage programs, programs to reduce emissions from extreme cold start conditions, and highway capacity expansion projects, may not be funded under the CMAQ program, despite the enhanced flexibility under this policy. Similarly, rehabilitation and maintenance activities as described in Section III.A.7 of this guidance show no potential to make further progress in achieving the air quality standards and may not be funded under the CMAQ program even under this provision. Program funds may also not be used for projects which are outside of nonattainment or maintenance area boundaries (in States with nonattainment and/or maintenance areas (see also Section III.B.4)) except in cases where the project is located in close proximity to the nonattainment or maintenance area and the benefits will be realized primarily within the nonattainment or maintenance area boundaries. Finally, projects not meeting the specific eligibility requirements under Titles 23 or 49 may also not be funded under this provision.

There is risk in employing this approach, and States and MPOs should do so cautiously. While the CMAQ provisions of ISTEA were written broadly to encourage an innovative approach, the principles of sound program management must still be followed. Under this approach, there will likely be proposals for funding with which transportation agencies have little experience. As such, before-and-after studies are required to determine the actual project impacts on the transportation network (measured in VMT or trips reduced, or other appropriate measure) and on air quality (emissions reduced). An assessment of the project's benefits should be forwarded to FHWA or FTA documenting the immediate impacts as well as a projection of what the project's long-term benefits will be.

All projects funded under this section should be explicitly identified in the annual report of CMAQ activities as required under Section V.B of this guidance. In future years, when before-and-after studies are complete, a summary of the actual project benefits should also be included in the annual report.

Finally, it is appropriate to place limits on the amount of CMAQ funds given the speculative nature of these proposals. As such, the amount obligated for proposals made pursuant to this section should not exceed 25 percent of a State's yearly CMAQ apportionment.

Another way that States and local agencies are encouraged to experiment is through the FHWA's or FTA's Innovative Financing Programs which can employ CMAQ funding. These programs allow FHWA and FTA greater latitude to use Federal transportation funds to set up revolving loan programs, employ creative approaches in meeting State or local match requirements, and other financial matters. Many innovative financing tools were adopted statutorily in the NHS legislation and now may be used in any Title 23 program, including CMAQ:

- expanded use of bonds and other forms of debt management, including eligibility of bond interest and other bond costs for Federal reimbursement;
- allowing privately donated funds, materials and services to constitute the required State and local match on Federal projects; and
- use of Federal funds as loans to revenue-generating facilities.

The NHS legislation allows States to receive matching credit for donations of privately donated funds, materials and services on a specific Federal-aid project. Before this change, States could only receive credit for State and local funds, and the value of privately donated right-of-way used as the local match. Now, however, any donated funds, or the fair market value of any privately donated materials or services that are accepted and incorporated into a CMAQ project or program by the State, are credited to the match requirements on that CMAQ project or program (see Attachment 2).

As a particular example of how the loan provision under the Innovative Financing program might be used in connection with CMAQ funding, a proposal has already been approved to construct an intermodal freight facility using CMAQ funds, in part, as a loan which will be paid back to the State from user fees. As the loan is repaid, the revenues will be used for transportation purposes. Similarly, there have also been inquiries about the use of CMAQ funds to convert privately-owned diesel trucks to alternative fuels, thus substantially reducing oxides of nitrogen (NOx) and PM-10 emissions. While this proposal would not be eligible under usual circumstances, a feasible approach could be developed to use CMAQ funds for the incremental cost of converting or replacing the diesel engines as a loan to private truck owners. Such a program would have to be fairly administered under direct State supervision and be open to all owners located in nonattainment and maintenance areas who are interested in participating.

In addition to the statutorily-adopted innovative financing tools, FHWA continues to solicit proposals from States for other flexible ways to finance projects, including CMAQ projects. Under "Test and Evaluation" authority in ISTEA, FHWA can approve new and innovative concepts for moving projects forward which otherwise might not be permitted under Title 23. States should contact their FHWA Division or FTA Regional offices to discuss any proposals of this nature.

7. **Fare/Fee Subsidy Programs:** Previous guidance allowed short-term operating assistance to support the initiation of new transportation services but did not allow demand-side incentives, such as fare or fee subsidies as a means of reducing transportation emissions. Now, the CMAQ program is being expanded to allow funding for partial user fare or fee subsidies in order to encourage greater use of alternative travel modes (e.g. carpool, vanpool, transit, bicycling and walking). This more expansive policy has been established to encourage areas to take a more comprehensive approach--including both supply and demand measures--in reducing transportation emissions.

The CMAQ funds can be used to subsidize fares or fees if the reduced fare/fee is offered as a component of a comprehensive, targeted program to reduce SOV use. Other components of such a program would include public information and marketing of non-SOV alternatives, parking management measures, and better coordination of existing transportation services. The intent of this policy is to focus on situations where alternate transportation modes are viable, but nonetheless, heavy reliance on single-occupant vehicles exists, such as at major employment or activity centers.

Examples of how the fare/fee subsidy might be used include: a discounted transit fare program developed through a cooperative arrangement between a transit operator and a major employer; a program subsidizing empty seats during the formation of a new vanpool; reduced fares for shuttle services within a defined area, such as a flat-fare taxi program; or providing financial incentives for carpooling, bicycling and walking in conjunction with a demand management program.

An underlying tenet of this provision is to support experimentation but always with the goal of identifying projects which are viable without the short-term funding assistance provided by the CMAQ program. Thus, the subsidy must be used in conjunction with reasonable fares or fees to allow the greatest chance of holding on to "trial" users. While the fare/fee subsidy program itself is not limited in time, specific groups or locales targeted under the program must be rotated and the subsidized fare/fee must be limited to any one entity or location for a period not to exceed 2 years.

The CMAQ program was never envisioned as a source of long-term support for transportation operations. However, FHWA and FTA believe this new policy is highly supportive of implementing and evaluating the effectiveness of a variety of demand management measures.

## IV. CMAQ Programming Priorities

The Clean Air Act requires that FHWA and FTA give priority to the implementation of transportation portions of applicable SIPs, and TCMs from applicable SIPs are provided the highest priority for funding under the CMAQ Program. The SIPs and the control measures they contain are necessary to assist a State to attain and maintain the NAAQS. If States are failing to implement TCMs in approved SIPs, adverse consequences can ensue. A basic criterion for making conformity determinations is the timely implementation of TCMs in the SIP, and conformity determinations are necessary before transportation plans, programs, or projects can be adopted and approved. If States fail to give priority to such TCMs, their conformity determinations and transportation initiatives will be in jeopardy. In addition, failing to implement TCMs is also the basis for application by EPA of the Clean Air Act's highway funding sanctions. Under certain circumstances, sanctions may be expanded even beyond the nonattainment area to cover an entire State. Once CMAQ projects and programs are identified, States need to insure that sufficient obligation authority is reserved to implement these projects and programs so that nonattainment areas make progress toward attainment of the NAAQS. While the continuation of CMAQ funds into the maintenance period under NHS legislation now makes it possible to look at longer term strategies, States and MPOs are still encouraged to consider and give priority to strategies that would help them meet their attainment deadlines.

States and MPOs should make strategic use of the CMAQ funds allotted to them even if they will not be used for TCMs in their SIPs. Limited resources and the low levels of effectiveness in reducing emissions through transportation measures that have been the experience to date argue for maximizing the impact of Federal, State and local expenditures to improve air quality. The FHWA and FTA continue to recommend that States and MPOs put together their transportation/air quality programs using complementary measures that simultaneously provide alternatives to SOV travel while reducing demand through pricing, parking management, regulatory or other means.

## V. Program Requirements

Proposals for CMAQ funding should include a precise description of the project, providing information on the project's size, scope and timetable. Also, an assessment of the proposal's expected emission reductions in accordance with the provisions described below is required. States are also required to submit annual reports detailing the obligations made under the CMAQ program during the previous fiscal year.

### A. Air Quality Analysis

1. **Quantitative Analyses:** Quantitative assessments of how the proposal is expected to reduce emissions is extremely important to assist areas in developing and funding the most effective projects in nonattainment and maintenance areas. They also provide an objective basis for

comparing the costs and benefits of competing proposals for CMAQ funding. In that States are required to submit annual reports, analysis of air quality benefits for individual project proposals will assist their preparation, as well. It is particularly important to assess the benefits of projects that improve or increase basic transportation services, including transit, traffic flow improvements, ridesharing, and bicycle and pedestrian improvements, and quantified emission reductions are expected for these projects. Similarly, analyses are expected for conversions to alternative fuels and I/M programs, as well.

Decisions regarding the level and type of air quality analysis needed, as well as the credibility of its results, are left to FTA and FHWA field staff, in consultation with EPA. Across the country, State and local transportation/air quality agencies have different approaches, analytical capabilities and technical expertise with respect to such analysis. At the national level, it is not feasible to specify a single method of analysis applicable in all cases.

While no single method is specified, every effort must be taken to ensure that determinations of air quality benefits are credible and based on a reproducible and logical analytical procedure that will yield quantitative results of emission reductions. Of course, if an air quality analysis has been done for other reasons, it may also be used for this purpose.

2. **Qualitative Assessments:** Although quantitative analysis of air quality impacts is required whenever possible, some improvements may not lend themselves to rigorous quantitative analysis because of the project's characteristics or because practical experience is lacking to adequately analyze the project. In these cases, a qualitative assessment based on a reasoned and logical examination of how the project or program will decrease emissions and contribute to attainment of a NAAQS is appropriate and acceptable.

Public education, marketing and other outreach efforts fall into this category. The primary benefit of these activities is enhanced communication and outreach that is expected to influence travel behavior, and thus, air quality. Yet tracing the benefits to air quality through the intervening steps requires a multi-disciplinary approach that incorporates market research analysis which is often beyond many transportation and air quality agencies' area of expertise. As such, these projects which can include advertising alternatives to SOV travel, employer outreach, public education campaigns, and communications or outreach to the public during "ozone alerts," or similar programs do not require a quantitative analysis of air quality benefits.

3. **Analyzing Groups of Projects:** In many situations, it may be more appropriate to examine the impacts of more comprehensive strategies to improve air quality by grouping TCMs. A strategy to reduce reliance on single-occupant vehicles in a travel corridor, for example, could include transit improvements coupled with demand management. The benefits of such a strategy should be evaluated together rather than as separate projects. Transit improvements, ridesharing programs or other TCMs affecting an entire region may be best analyzed in this fashion.

## B. Annual Reports

To assist in meeting statutory obligations, States are required to prepare annual reports for FHWA, FTA, and the general public that specify how CMAQ funds have been spent and what the air quality benefits are expected to be. Annual reporting makes the States and local agencies accountable to the general public. Also, the annual report enables FHWA and FTA to be responsive to the Congress on the utilization of the funds and their impact.

This report should be provided by the first day of February following the end of the previous Federal fiscal year (September 30) and cover all CMAQ obligations for that fiscal year. The report should include:

1. A list of projects funded under CMAQ, best categorized by one of the following seven project types:

experimental pilot projects.

transit: facilities; vehicles and equipment; operating assistance for new transit service, etc.

shared-ride: vanpool and carpool programs, and parking for shared-ride services, etc.

traffic flow improvements: traffic management and control services, signalization projects, intersection improvements, and construction or dedication of HOV lanes, etc.

demand management: trip reduction programs, transportation management plans, flexible work schedule programs, vehicle restriction programs, etc.

pedestrian/bicycle: bikeways, storage facilities, promotional activities, etc.

I/M and other TCMs (not covered by the above categories).

Project planning and other developmental activities, as well as public education, marketing and other outreach efforts which are eligible under the CMAQ program should be categorized the same way as the project or program they support.

2. The amount of CMAQ funds obligated for the year, disaggregated by the type of project listed above; and
3. A tabulation of the estimated air quality benefits for the year summed from project-level analyses and expressed as reductions of ozone precursors (volatile organic compounds and NO<sub>x</sub>), CO, or PM-10. These reductions should be expressed as kilograms per day removed from the atmosphere. This information will be important in monitoring and reporting to Congress on CMAQ program effectiveness.



Note that the annual report should now specifically include and identify any projects funded under the Experimental Pilot Projects/Innovative Financing provision of this guidance (see Section III.B.6). Summaries of before-and-after studies should be included as they become available.

## **VI. Federal, State and MPO Responsibilities**

### **A. Federal Agency Responsibilities/Coordination**

As noted in previous guidance, the FTA and FHWA regional offices should establish a consultation and coordination process with their respective EPA regional offices for early review of CMAQ funding proposals. Review by EPA is critical to assist the determination of whether a project will have air quality benefits and to assure that the most effective projects and programs are approved for CMAQ funding. Proposals for funding should be forwarded to EPA as soon as possible to insure timely review.

Either the local FTA or FHWA office will be responsible for project management. In cases where the project is clearly related to transit, FTA will determine the project's eligibility and manage the project. Similarly, traffic flow improvements that improve air quality through operational improvements of the road system would be managed by FHWA. For projects that include both traffic flow and transit elements, such as park-and-ride lots and intermodal projects, the managing agency will be decided on a case-by-case basis. Following initial review by the managing agency and consultation with EPA, the managing agency makes the final determination on whether the project or program is likely to contribute to attainment of a NAAQS and is eligible for CMAQ funding.

The consultation process should provide for timely review and handling of CMAQ funding proposals considering the tight attainment deadlines facing many areas. A project category list should be developed for expedited funding under CMAQ without further review by the other agencies. As EPA will evaluate all TCMs in an approved SIP, they can be included on such a list. It is strongly recommended that the FHWA, FTA and EPA regional offices develop and implement a memorandum of understanding that specifies which projects can go forward without further coordination. It should also include deadlines for review beyond which it will be assumed that the review agencies have no comments on the proposal. For Federal agency review of individual proposals, that consultation period should be approximately 2 weeks. For review of multiple proposals, such as a draft TIP, Federal review should be completed as expeditiously as possible so that the response time by Federal Agencies to CMAQ funding proposals is generally limited to about 1 month.

## **B. State and MPO Responsibilities**

Decisions over which projects and programs to fund under CMAQ should be made through a cooperative process involving the State departments of transportation, affected MPOs, and State and local air quality agencies. This process serves to develop a pool of potential CMAQ projects to be considered for funding in a State's nonattainment and maintenance areas. The programming of CMAQ projects should follow the procedures for TIP development noted below.

Projects to be funded with CMAQ funds must be included in the TIPs that are developed by the MPOs in cooperation with the State and transit operators. Under the metropolitan planning regulations of October 28, 1993 (23 CFR 450.300), TIPs must contain a priority list of projects to be carried out in the 3-year period following adoption. As a minimum, projects must be grouped by year and proposed funding source. For projects targeting CMAQ funds, priority in the TIP should be based on the projects' estimated air quality benefits.

Since the TIPs must be consistent with available funding, it is important that the State advise the MPOs of its proposed approach to utilize CMAQ funds in a timely manner. Once CMAQ projects are included in a TIP (approved by the MPO and the Governor), and included in a FHWA/FTA-approved statewide TIP, those projects in the first year may be implemented. Projects in the second or third year of the TIP could be advanced for implementation using the specified project selection procedures in the planning regulation.

It is the State's responsibility to manage its obligation authority made pursuant to Title 23 to ensure that CMAQ (and other Federal-aid) funds are obligated in a timely fashion and do not lapse. Other provisions affecting the overall Federal-aid program, such as advance construction authority, apply to the CMAQ program as well.

Close coordination is needed between the State and MPO to assure that CMAQ funds are used appropriately and to maximize their effectiveness in meeting the Clean Air Act requirements. States and MPOs must fulfill this responsibility so that nonattainment areas are able to make good-faith efforts to attain the NAAQS by the prescribed deadlines. State and MPO actions should include consultation with air quality agencies at the State and local levels to develop an appropriate project list of CMAQ programming priorities which will have the greatest impact on air quality.

## **C. Apportionments and State Suballocation**

According to the ISTEA legislation, CMAQ funds are apportioned to the States primarily based on the severity of their ozone pollution and the number of people affected by it. Each State is guaranteed a minimum of 0.5 percent of the total yearly apportionment even if it has no nonattainment areas.

Under the CMAQ Program as amended by the NHS legislation, States which have ozone nonattainment areas that are classified as "marginal" or worse during any part of FY 1994 (October 1, 1993--September 30, 1994) are apportioned funds based on the population in these areas and the severity of the ozone problem at that time. If the ozone nonattainment area was also a CO nonattainment area classified as "moderate" or worse during FY 1994, the State is apportioned additional CMAQ funds. If a State contains a CO nonattainment area that was not a nonattainment area for ozone as well, no additional funds are apportioned to the State. Areas redesignated to attainment status before FY 1994 would not be included in the apportionment factors. Changes to nonattainment classifications (from marginal to moderate for example) occurring during FY 1994 would affect the distribution. Any changes occurring before or after FY 1994 will have no effect on the distribution of CMAQ funds for FY 1996 or FY 1997.

The CMAQ funds can be used in all areas designated as nonattainment under Section 107(d) of the Clean Air Act, including any areas later redesignated as maintenance areas. CMAQ funds cannot be used for projects in areas designated as "transitional," "submarginal," or "incomplete data" nonattainment areas for ozone or in "not classified" nonattainment areas for carbon monoxide.

Despite the statutory formula for determining the apportionment amount, the State can use its CMAQ funds in any ozone, CO or PM-10 (under certain conditions) nonattainment or maintenance area. It is under no statutory obligation to suballocate CMAQ funds in the same way as they were apportioned. States may retain funds for use in specific nonattainment or maintenance areas or fund CMAQ projects on a case-by-case basis. However, it is clear from the program review that there must be a collaborative process between the State and MPOs in nonattainment and maintenance areas for selecting projects to maximize emission reductions. Thus, States are strongly encouraged to consult with affected MPOs to determine CMAQ priorities and allocate funds accordingly.

The Federal share for most eligible activities and projects is 80 percent or 90 percent if used on certain activities on the Interstate System. Under certain conditions (including sliding scale rates), the Federal share under Title 23 can even be higher. Certain activities identified in Section 120(c) of Title 23 (see Attachment 3), including traffic control signalization, and commuter carpooling and vanpooling, may be funded at 100 percent Federal share if they meet the conditions of that section. Pedestrian and bicycle projects and programs previously limited to an 80 percent Federal share, without the use of sliding scale rates, are now treated exactly the same as general Federal-aid projects (i.e. the Federal share payable on pedestrian and bicycle projects now includes the sliding scale rates) as a result of the NHS legislation. The NHS legislation also makes it easier for States to receive matching credit for donations of privately donated funds, materials, and services on a specific Federal-aid project (see Section III.B.6)

## **VII. States that are in Attainment**

States that do not have any ozone or CO nonattainment areas may use their funds for any eligible projects under the STP or the CMAQ program. If a State has a maintenance area and no nonattainment areas, the air quality needs of the maintenance area should be given first priority (see Section III.B.4). States with PM-10 areas only are encouraged to use CMAQ funds for projects and programs that contribute to reduction of PM-10 emissions. This priority should be given only if mobile sources are considered significant contributors to such nonattainment.

States that are in attainment or achieve attainment of transportation-related NAAQS, are further encouraged to give priority to the use of CMAQ program funds for the development of congestion management systems, public transportation facilities and equipment, and intermodal facilities and systems, as well as the implementation of projects and programs produced by those systems.

## **VIII. Further Information**

If you have any questions on the CMAQ program or this guidance, please contact Mike Savonis of FHWA at (202) 366-2080 or Abbe Marner of FTA at (202) 366-0096.

/s/ Thomas J. Ptak  
Thomas J. Ptak  
Federal Highway Administration

/s/ Charlotte M. Adams  
Charlotte M. Adams  
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## Attachment 1

**TITLE 23 UNITED STATES CODE  
HIGHWAYS  
CHAPTER 1 - FEDERAL AID HIGHWAYS**

**Sec. 149. Congestion mitigation and air quality improvement program**

(a) Establishment.-The Secretary shall establish a congestion mitigation and air quality improvement program in accordance with this section.

(b) Eligible Projects.-Except as provided in subsection (c), a State may obligate funds apportioned to it under section 104(b)(2) for the congestion mitigation and air quality improvement program only for a transportation project or program *if the project or program is for an area in the State that was designated as a nonattainment area under section 107(d) of the Clean Air Act (42 U.S.C. 7407(d)) during any part of fiscal year 1994 and -*

(1)(A) if the Secretary, after consultation with the Administrator of the Environmental Protection Agency, determines, on the basis of information published by the Environmental Protection Agency pursuant to section 108(f)(1)(A) of the Clean Air Act (other than clauses (xii) and (xvi) of such section), that the project or program is likely to *contribute to--*

*(i) the attainment of a national ambient air quality standard; or*

*(ii) the maintenance of a national ambient air quality standard in an area that was designated as a nonattainment area but that was later redesignated by the Administrator of the Environmental Protection Agency as an attainment area under section 107(d) of the Clean Air Act (42 U.S.C. 7407(d)); or*

(B) in any case in which such information is not available, if the Secretary, after such consultation, determines that the project or program is part of a program, method, or strategy described in such section;

(2) if the project or program is included in a State implementation plan that has been approved pursuant to the Clean Air Act and the project will have air quality benefits;

(3) the Secretary, after consultation with the Administrator of the Environmental Protection Agency, determines that the project or program is likely to contribute to the attainment of a national ambient air quality standard, whether through reductions in vehicle miles traveled, fuel consumption, or through other factors; *or*

*(4) to establish or operate a traffic monitoring, management, and control facility or program if the Secretary, after consultation with the Administrator of the Environmental Protection Agency, determines that the facility or program is likely to contribute to the attainment of a national ambient air quality standard.*

No funds may be provided under this section for a project which will result in the construction of new capacity available to single occupant vehicles unless the project consists of a high occupancy vehicle facility available to single occupant vehicles only at other than peak travel times. In areas of a State which are nonattainment for ozone or carbon monoxide, or both, and for PM-10 resulting from transportation activities, the State may obligate such funds for any project or program under paragraph (1) or (2) without regard to any limitation of the Department of Transportation relating to the type of ambient air quality standard such project or program addresses.

(c) States Without a Nonattainment Area.-If a State does not have a nonattainment area for ozone or carbon monoxide under the Clean Air Act located within its borders, the State may use funds apportioned to it under section 104(b)(2) for any project eligible for assistance under the surface transportation program.

(d) Applicability of Planning Requirements.-Programming and expenditure of funds for projects under this section shall be consistent with the requirements of sections 134 and 135 of this title.

## **Section 104 Apportionment**

(b)(2) Congestion mitigation and air quality improvement program.-For the congestion mitigation and air quality improvement program, in the ratio which the weighted nonattainment area population of each State bears to the total weighted nonattainment area population of all States. The weighted nonattainment area population shall be calculated by multiplying the population of each area within any State that *was a nonattainment area (as defined in section 171(2) of the Clean Air Act (42 U.S.C. 7501(2))) for ozone during any part of fiscal year 1994* by a factor of-

(A) 1.0 if the area is classified as a marginal ozone nonattainment area under subpart 2 of part D of title I of the Clean Air Act;

(B) 1.1 if the area is classified as a moderate ozone nonattainment area under such subpart;

- (C) 1.2 if the area is classified as a serious ozone nonattainment area under such subpart;
- (D) 1.3 if the area is classified as a severe ozone nonattainment area under such subpart; or
- (E) 1.4 if the area is classified as an extreme ozone nonattainment area under such subpart.

If the area *was also* classified under subpart 3 of part D of title I of such Act as a nonattainment area for carbon monoxide *during any part of fiscal year 1994*, for purposes of calculating the weighted nonattainment area population, the weighted nonattainment area population of the area, as determined under the preceding provisions of this paragraph, shall be further multiplied by a factor of 1.2. Notwithstanding any provision of this paragraph, in the case of States with a total 1990 census population of 15,000,000 or greater, the amount apportioned under this paragraph in a fiscal year to all of such States in the aggregate, shall be distributed among such States based on their relative populations; except that none of such States shall be distributed more than 42 percent of the aggregate amount so apportioned to all of such States. Notwithstanding any other provision of this paragraph, each State shall receive a minimum apportionment of  $\frac{1}{2}$  of 1 percent of the funds apportioned under this paragraph. The Secretary shall use estimates prepared by the Secretary of Commerce when determining population figures.

*(c) Effect of Limitation on Apportionment.- Notwithstanding any other provision of law, for each of fiscal years 1996 and 1997, the amendments made by subsection (a) shall not affect any apportionment adjustments under section 1015 of the Intermodal Surface Transportation Efficiency Act of 1991 (105 Stat. 1943).*

Attachment 2

UNITED STATES CODE

TITLE 23

Sec. 323. Donations

(a) Donations of Property being Acquired.- Nothing in this title, or in any other provision of law, shall be construed to prevent a person whose real property is being acquired in connection with a project under this title, after he has been fully informed of his right to receive just compensation for the acquisition of his property, from making a gift or donation of such property, or any part thereof, or of any of the compensation paid therefor, to a Federal agency, a State or a State agency, or a political subdivision of a State, as said person shall determine.

(b) Credit for Donated Lands.-

(1) General Rule.- Notwithstanding any provision of this title, the State matching share for a project with respect to which Federal assistance is provided out of the Highway Trust Fund (other than the Mass Transit Account) may be credited by the fair market value of land incorporated into the project and lawfully donated to the State after the date of the enactment of this subsection.

(2) Establishment of Fair Market Value.- The fair market value of the donated land shall be established as determined by the Secretary. Fair market value shall not include increases and decreases in the value of donated property caused by the project. For purposes of this subsection, the fair market value of donated land shall be established as of the date the donation becomes effective or when equitable title to the land vests in the State, whichever is earlier.

(3) Limitation on Applicability.- This subsection shall not apply to donations made by an agency of a Federal, State, or local government.

(4) Limitation on Amount of Credit.- The credit received by a State pursuant to this subsection may not exceed the State's matching share for the project to which the donation is applied.

(c) Credit for Donations of Funds, Materials, or Services.--Nothing in this title or any other law shall prevent a person from offering to donate funds, materials, or services in connection with a project eligible for assistance under this title. In the case of such a project with respect to which the Federal Government and the State share in paying the cost, any donated funds, or the fair market value of any donated materials or services, that are accepted and incorporated into the project by the State highway department shall be credited against the State share.

(d) Procedures.- A gift or donation in accordance with subsection (a) may be made at any time during the development of a project. Any document executed as part of such donation prior to the approval of an environmental document prepared pursuant to the National Environmental Policy Act of 1969 shall clearly indicate that--

(1) all alternatives to a proposed alignment will be studied and considered pursuant to such Act;

(2) acquisition of property under this section shall not influence the environmental assessment of a project including the decision relative to the need to construct the project or the selection of a specific location; and

(3) any property acquired by gift or donation shall be revested in the grantor or successors in interest if such property is not required for the alignment chosen after public hearings, if required, and completion of the environmental document.



Attachment 3

UNITED STATES CODE  
TITLE 23

Sec. 120. Federal share payable

(c) INCREASED FEDERAL SHARE FOR CERTAIN SAFETY PROJECTS.--The Federal share payable on account of any project for traffic control signalization, pavement marking, commuter carpooling and vanpooling, or installation of traffic signs, traffic lights, guardrails, impact attenuators, concrete barrier end treatments, breakaway utility poles, or priority control systems for emergency vehicles at signalized intersections may amount to 100 percent of the cost of construction of such projects; except that not more than 10 percent of all sums apportioned for all the Federal-aid systems for any fiscal year in accordance with Section 104 of this title shall be used under this subsection.

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